

1 **CLAIMS**

2 1. A computer-implemented method of entering information, comprising the steps  
3 of:

4 (1) displaying on a computer screen a form comprising a plurality of fields, each  
5 field having a field identifier and a data entry region into which a data value can be written;

6 (2) determining that a user has selected one of the plurality of fields;

7 (3) comparing the field identifier of the selected field to previously stored field  
8 identifiers and, upon finding a match, displaying a list of suggested data values previously  
9 stored in response to one or more different forms previously filled in by the user;

10 (4) in response to the user selecting one of the suggested data values, copying the  
11 selected one data value into the data entry region of the selected field; and

12 (5) in response to the user entering a non-suggested data value, storing the non-  
13 suggested data value into a data storage area for future use.

14 2. The computer-implemented method of claim 1, wherein step (5) comprises the  
15 step of storing the non-suggested data value, the field identifier, and a Universal Resource  
16 Locator (URL) for a web site from which the form was generated into the data storage area  
17 for future use with a different form.

18 3. The method of claim 1, further comprising the step of, prior to step (4),  
19 detecting a user-initiated action and inhibiting the copying of the suggested data value into  
20 the data entry region until after receipt of the user-initiated action.

21 4. The method of claim 1, wherein step (1) comprises the step of displaying a web  
22 page using an Internet web browser; and wherein step (3) is performed in the Internet web  
23 browser.

24 5. The method of claim 1, wherein step (3) comprises the step of comparing the  
25 field identifier of the selected field to previously stored field identifiers having the same  
26 Universal Resource Locator (URL) and, upon finding a match, displaying suggested data  
27 values having the same URL.

28 6. The method of claim 1, wherein step (3) comprises the step of comparing the  
29 field identifier of the selected field to a first plurality of dynamically updated historical

1 identifiers previously extracted from a plurality of forms across a plurality of different web  
2 sites, and also to a statically created user profile comprising a second plurality of field  
3 identifiers having associated data values, and displaying suggested data values taken from  
4 both the historical identifiers and from the statically created user profile.

5 7. The method of claim 6, wherein step (3) comprises the step of comparing the  
6 field identifier of the selected field to a statically created common names data store  
7 comprising frequently used field identifiers that are mapped to one or more field identifiers  
8 in the user profile.

9 8. The method of claim 7, further comprising the step of comparing the field  
10 identifier of the selected field to field identifiers in a statically created standard vCard  
11 schema, wherein the field identifiers in the vCard schema are mapped to one or more field  
12 identifiers in the common names data store.

13 9. The method of claim 1, wherein step (3) comprises the step of displaying a pop-  
14 down list of suggestions; and wherein step (4) comprises the steps of navigating through  
15 the pop-down list using a computer input device to select the selected one data value, and  
16 removing the pop-down list after the user has made the selection.

17 10. The method of claim 9, further comprising the step of providing an extendable  
18 corner tab that permits the pop-down list to be resized by the user.

19 11. The method of claim 1, further comprising the step of providing the user with  
20 an option to globally disable future storage of field data values.

21 12. The method of claim 1, further comprising the step of providing the user with  
22 an option to disable on a field-by-field basis storage of field data values.

23 13. The method of claim 1, further comprising the step of detecting a password  
24 field and, upon detecting such a field, forcing the user to select whether a data value for  
25 that field will be stored for later use.

26 14. The method of claim 1, further comprising the step of performing numerical  
27 processing on the field to determine whether the field represents a credit card number and,  
28 in response thereto, suppressing suggestions.

29 15. The method of claim 1, wherein step (3) comprises the step of comparing the  
30 field identifier of the selected field to previously stored field identifiers that reside on a

1 web site different from the computer on which the form is displayed.

2 16. A computer-implemented method of entering information at a user's computer,  
3 comprising the steps of:

4 (1) displaying on the user's computer a first form comprising a first plurality of text  
5 fields each comprising a field identifier and a data entry region into which a data value can  
6 be written;

7 (2) entering a data value into one of the first plurality of text fields and storing the  
8 entered data value into a local storage area on the user's computer;

9 (3) displaying on the user's computer a second form comprising a second plurality  
10 of text fields each comprising a field identifier and a data entry region into which a data  
11 value can be written, wherein the second plurality of text fields comprise field identifiers  
12 that are different from those in the first form;

13 (4) detecting that one of the text fields on the second form is correlated with one of  
14 the text fields on the first form despite having a different field identifier and, in response  
15 thereto, retrieving a corresponding previously stored data value from the local storage area;  
16 and

17 (5) suggesting the data value retrieved in step (4) to the user as a possible value to  
18 be entered into the second form.

19 17. The computer-implemented method of claim 16, wherein step (1) comprises  
20 the step of generating the first form from instructions retrieved from a first web site, and  
21 wherein step (3) comprises the step of generating the second form from instructions  
22 retrieved from a second web site.

23 18. The computer-implemented method of claim 16, wherein step (4) comprises  
24 the step of using Bayesian inference techniques.

25 19. The computer-implemented method of claim 16, wherein step (4) comprises  
26 the step of retrieving a plurality of previously stored data values and displaying the  
27 plurality of previously stored data values to the user in a list.

28 20. The computer-implemented method of claim 16, further comprising the step of  
29 inhibiting the release of the suggested data value until the user has manipulated a user input  
30 device.

1 21. A computer system comprising a processing unit, a memory, a display unit, an  
2 interface to a network, and an Internet web browser that performs the steps of:

3 (1) displaying a web page comprising a plurality of fields, each field having a field  
4 identifier and a data entry region into which a data value can be written;

5 (2) determining that a user has selected one of the plurality of fields;

6 (3) comparing the field identifier of the selected field to previously stored field  
7 identifiers and, upon finding a match, displaying a list of suggested data values previously  
8 stored in response to one or more different forms previously filled in by the user;

9 (4) in response to the user selecting one of the suggested data values, copying the  
10 selected one data value into the data entry region of the selected field; and

11 (5) in response to the user entering a non-suggested data value, storing the non-  
12 suggested data value into a data storage area for future use.

13 22. The computer system of claim 21, wherein the Internet web browser performs  
14 the step of detecting a keystroke or mouse click from the user and inhibiting the copying of  
15 the suggested data value into the data entry region until after receipt of the keystroke or  
16 mouse click.

17 23. The computer system of claim 21, wherein the Internet web browser performs  
18 the step of comparing the field identifier of the selected field to previously stored field  
19 identifiers having the same Universal Resource Locator (URL) and, upon finding a match,  
20 displaying suggested data values having the same URL.

21 24. The computer system of claim 21, wherein the Internet web browser performs  
22 the step of comparing the field identifier of the selected field to a first plurality of  
23 dynamically updated historical identifiers previously extracted from a plurality of forms  
24 across a plurality of different web sites, and also to a statically created user profile  
25 comprising a second plurality of field identifiers having associated data values, and  
26 displaying suggested data values taken from both the historical identifiers and from the  
27 statically created user profile.

28 25. The computer system of claim 21, wherein the Internet web browser performs  
29 the step of comparing the field identifier of the selected field to field identifiers in a  
30 statically created standard vCard schema, wherein the field identifiers in the vCard schema

1 are mapped to one or more field identifiers in a data store comprising previously used  
2 values.

3 26. The computer system of claim 21, wherein the Internet web browser performs  
4 the steps of (a) displaying a pop-down list of suggestions through which the user can  
5 navigate using a computer input device to select the selected one data value, and (b)  
6 removing the pop-down list after the user has made the selection.

7 27. The computer system of claim 21, wherein the Internet web browser further  
8 performs the step of providing the user with an option to disable on a field-by-field basis  
9 storage of field data values.

10 28. The computer system of claim 21, wherein the Internet web browser further  
11 performs the step of comparing the field identifier of the selected field to previously stored  
12 field identifiers that reside on a web site different from the computer on which the form is  
13 displayed.

14 29. A computer-readable medium having computer-executable instructions for  
15 performing steps comprising:

16 (1) displaying on a computer screen a form comprising a plurality of fields, each  
17 field having a field identifier and a data entry region into which a data value can be written;

18 (2) determining that a user has selected one of the plurality of fields;

19 (3) comparing the field identifier of the selected field to previously stored field  
20 identifiers and, upon finding a match, displaying a list of suggested data values previously  
21 stored in response to one or more different forms previously filled in by the user;

22 (4) in response to the user selecting one of the suggested data values, copying the  
23 selected one data value into the data entry region of the selected field; and

24 (5) in response to the user entering a non-suggested data value, storing the non-  
25 suggested data value into a data storage area for future use.

26 30. The computer-readable medium of claim 29, wherein the computer-executable  
27 instructions perform the step of storing the non-suggested data value, the field identifier,  
28 and a Universal Resource Locator (URL) for a web site from which the form was generated  
29 into the data storage area for future use with a different form.

30 31. The computer-readable medium of claim 29, wherein the computer-executable

1 instructions perform the step of, prior to step (4), detecting a keystroke or mouse click from  
2 the user and inhibiting the copying of the suggested data value into the data entry region  
3 until after receipt of the keystroke or mouse click.

4 32. The computer-readable medium of claim 29, wherein the computer-executable  
5 instructions perform the step of comparing the field identifier of the selected field to  
6 previously stored field identifiers having the same Universal Resource Locator (URL) and,  
7 upon finding a match, displaying suggested data values having the same URL.

8 33. The computer-readable medium of claim 29, wherein the computer-executable  
9 instructions perform the step of comparing the field identifier of the selected field to a first  
10 plurality of dynamically updated historical identifiers previously extracted from a plurality  
11 of forms across a plurality of different web sites, and also to a statically created user profile  
12 comprising a second plurality of field identifiers having associated data values, and  
13 displaying suggested data values taken from both the historical identifiers and from the  
14 statically created user profile.

15 34. The computer-readable medium of claim 33, wherein the computer-executable  
16 instructions perform the step of comparing the field identifier of the selected field to a  
17 statically created common names data store comprising frequently used field identifiers  
18 that are mapped to one or more field identifiers in the user profile.

19 35. The computer-readable medium of claim 34, wherein the computer-executable  
20 instructions perform the step of comparing the field identifier of the selected field to field  
21 identifiers in a statically created standard vCard schema, wherein the field identifiers in the  
22 vCard schema are mapped to one or more field identifiers in the common names data store.

23 36. The computer-readable medium of claim 29, wherein the computer-executable  
24 instructions perform the steps of displaying a pop-down list of suggestions, allowing the  
25 user to navigate through the pop-down list using a computer input device to select the  
26 selected one data value, and removing the pop-down list after the user has made the  
27 selection.

28 37. The computer-readable medium of claim 36, wherein the computer-executable  
29 instructions perform the step of providing an extendable corner tab that permits the pop-  
30 down list to be resized by the user.



username into a separate password field on the form.

47. The method of claim 46, further comprising the step of matching a URL associated with the form to a previously stored URL and, in response to a match failure, inhibiting the copying of the password.

48. The method of claim 16, further comprising the step of detecting that one of the text fields on the second form is a username field and, in response to the user selecting a suggested username, automatically copying a password previously used in response to the selected username into a separate password field on the second form.

49. The method of claim 48, further comprising the step of matching a URL associated with the second form to a previously stored URL and, in response to a match failure, inhibiting the copying of the password.

50. The computer system of claim 21, wherein the Internet web browser further performs the step of detecting that the one selected field is a username field and, in response to the user selecting a suggested username, automatically copying a password previously used in response to the selected username into a separate password field on the web page.

51. The computer system of claim 50, wherein the Internet web browser further performs the step of matching a URL associated with the web page to a previously stored URL and, in response to a match failure, inhibiting the copying of the password.

52. The computer-readable medium of claim 29, wherein the computer-executable instructions further perform the step of detecting that the one selected field is a username field and, in response to the user selecting a suggested username, automatically copying a password previously used in response to the selected username into a separate password field on the form.

53. The computer-readable medium of claim 52, wherein the computer-executable instructions further perform the step of matching a URL associated with the form to a previously stored URL and, in response to a match failure, inhibiting the copying of the password.

54. The method of claim 1, further comprising the step of detecting that the one selected field is a password field and, in response thereto, determining whether the user has



1 previously indicated whether a password should be stored for a URL on which the form  
2 resides and, if no such previous indication was made, prompting the user to indicate  
3 whether the password field should be stored for that URL.

4            55. The method of claim 16, wherein step (2) comprises the step of detecting that  
5            the one text field is a password field and, in response thereto, determining whether the user  
6            has previously indicated whether a password should be stored for a URL on which the  
7            form resides and, if no such previous indication was made, prompting the user to indicate  
8            whether the password field should be stored for that URL.

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